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World Pulses Day: on the trail of Yakina the bean

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The humble bean can make a big impact: the Pan-Africa Bean Research Alliance (PABRA) is using an innovative approach to fight malnutrition, improve food security, stimulate the private sector and empower women in Burundi. In honour of World Pulses Day, we follow the journey of one bean, 'Yakina', as it travels from the beanstalk to the mouths of hungry children.

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This speckled red bean – known in scientific circles as MAC44 – not only generates twice the yield of conventional beans, it also cooks quickly, tastes good and is rich in trace elements. © PABRA

Have you ever heard of a bean corridor? It's not the aisle between rows of beanstalks being grown in a greenhouse, and it's also not what toddlers create when they'd rather play with their food than eat it.

Bean corridors are the paths taken by beans as they are produced, distributed and consumed. The term encompasses regional and national trade routes as well as all parties involved in a bean's journey from the field to the plate. Beans have the potential to fight malnutrition while improving food security, stimulating the private sector and promoting gender equality.

In order to accomplish all of this, however, you first need the right variety of bean: one that can withstand extreme weather, is tailored to local conditions and contains important trace elements such as iron and zinc. Most importantly, it should also produce high yields. Together with partners such as Switzerland, the Pan-Africa Bean Research Alliance (PABRA) has been on the ground in 32 African countries for more than two decades, working on cultivating bean varieties with exactly these characteristics. PABRA's work doesn't stop there, however: the organisation distributes and promotes these seeds, holds workshops, coordinates between partners and provides support to small business owners. The impact of PABRA and its partner organisations can be felt all along the bean corridor.

To understand how PABRA makes a difference, we have detailed the journey of one bean as it travels the bean corridor. This is the story of Yakina the bean.

Yakina the bean



The average female smallholder farmer in Burundi owns around 0.2 hectares of land – roughly 12 by 170 metres – and uses the plot to feed her family. © PABRA

Yakina is a climbing variety of bean scientifically known as MAC44. The speckled red legume grows in the hills surrounding Mount Heha in the western part of Burundi, a small central African country and one of the world's poorest states. Over the past eight weeks, Yakina has been growing here in the fields of a female smallholder farmer who works around one-fifth of a hectare of land. She wanted to try out one of the new varieties of beans that she learned about in a PABRA workshop. She also received training on sowing, tending to and cultivating the beans. In her first year of growing these, she was able to nearly double her yield compared to conventional varieties.

No more hunger and malnutrition



With hermetically sealable PICS bags, beans can be stored longer and under better conditions. © PABRA

The farmer and her family now have enough to eat – something that can't be taken for granted in Burundi. Their health has also improved thanks to the properties of this type of bean: these beans have been biofortified to contain significantly higher amounts of iron and zinc, bringing years of malnutrition to an end. The family even has a little bit of money left over after the harvest, enabling them to buy a few eggs every now and then.

It's now harvest time. Yakina is hanging off its stalk, enjoying the sun. The farmer and her family are busy with the harvest. The soil quality of her smallholding has improved since planting the beans, which in turn has boosted the quality of her vegetable crops. This is because beans return nitrogen to the soil instead of depleting it.

After the harvest, Yakina is dried along with the other beans and filled into sacks. The beans used to get attacked during storage by pests like the bean beetle, which led to panic selling or the destruction of entire harvests. For this reason, PABRA introduced the farmers to PICS bags, which can be hermetically sealed. Local companies have taken over production and sale of the bags, and PABRA was also able to convince the Burundian government to subsidise them. This has made the bags both accessible and affordable to people living in remote areas.

Success empowers women

The farmer keeps a part of the harvest to feed herself and her family. Ever since she visited a nutrition workshop organised by PABRA, she has been able to serve more meals with more variety. She is noticeably proud of the fruits of her labour and the knowledge she has acquired. Armed with a new sense of self-confidence, she even starts taking a more active part in discussions about the future of her community. She even does so when men are present, which is not the norm in her country.

In Burundi's patriarchal society, women are responsible for putting food on the table while men take care of earning money. The farmer's husband has used his mobile phone to register on a bean platform in order to sell his wife's beans. Thanks to this platform, which was organised by PABRA, he is able to reach more buyers and therefore receives a better price.

Business flourishes along the value chain



Flour milled from biofortified beans is a popular product, which is why this female factory owner has been able to expand operations bit by bit. © PABRA

A company in Bujumbura, the country's capital, wins a bid to buy the beans. It is a prospering flour company founded and run by a woman. What started as a one-woman business in her backyard now occupies its own building and has 17 permanent employees. The company mills corn, soy, and most importantly, biofortified beans. Yakina and other beans are loaded into a new, larger-capacity grinding machine that the company was able to finance thanks to PABRA-coordinated funds from Switzerland.

Yakina the bean is now milled into flour, which is purchased by the kilo and brought to a nearby childcare centre. The women working at the childcare centre have also attended PABRA's nutrition workshops and turn the bean flour into a tasty porridge. The children eagerly wolf it down, evidently also enjoying the flavour.

As the spoonfuls of porridge are scooped up, Yakina the bean arrives at the final destination of its journey.

About PABRA – Pan-Africa Bean Research Alliance

PABRA is an international network of scientists, smallholder farmers, private companies, governments, policymakers and civil society organisations working in 32 countries throughout sub-Saharan Africa. PABRA is coordinated by the International Center for Tropical Agriculture (CIAT), a research centre of the Consultative Group for International Agricultural Research (CGIAR). PABRA's main mission is improving the living conditions of smallholder bean farmers, many of whom are women. This is made possible via efficient networks, solid research and improved seed systems. PABRA has reached over 38 million farming households and 200 private companies in the bean sector throughout Africa to date.

One of the SDC's longest-lasting programmes



How beans are beating hunger in Burundi. PABRA's results speak for themselves. © PABRA

The Swiss Agency for Development and Cooperation (SDC) has been a supporter of PABRA and its predecessor organisation since 1983, making it one of the SDC's longest-lasting programmes. And with good reason: PABRA produces tangible results (see infographic) and shares the objectives of Switzerland's Foreign Policy Strategy 2020–23. The organisation creates local jobs, offers responses to climate change and addresses the push factors driving migration.


Cooperation with government authorities such as the Burundi Institute of Agronomic Sciences (ISABU) has helped PABRA reach over 1.2 million smallholder farmers in the country, who are now able to work with improved varieties of beans. This translates into 4.5 million smallholder families with significantly improved levels of nutrition and more empowered mothers and daughters.

However, many challenges remain, with climate change and population pressure among the most critical. There is still much to do.

PABRA will stay the course – with Swiss development cooperation offering its continued support.

[How beans are beating hunger in Burundi](#) (PDF, 3.9 MB, English).

Links

PABRA – Pan Africa Bean Research Alliance 


Atlas of common bean production in Africa 


Contribution to the Pan Africa Bean Research Alliance PABRA

Agriculture and food security

Climate change and the environment

Gender equality

International Center for Tropical Agriculture
CIAT 

Consultative Group on International
Agricultural Research CGIAR 

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GENDER EQUALITY

Eighty per cent of FGM cases happen in Africa

The UN estimates that 200 million women and girls around the world have undergone female genital mutilation (FGM), with 80 per cent of cases occurring in Africa. The impact of Covid-19 has made some of the statistics on FGM even worse. Switzerland is committed to defending fundamental human rights: preventing and combating sexual and gender-based violence is a priority of its foreign policy and of its



PRIVATE SECTOR

"Sustainable development would not be possible without business"

SDC Director General Patricia Danzi talks about the role of the private sector in international cooperation, explains how the new guidance regulates cooperation, and highlights how the involvement of businesses in achieving the Sustainable Development Goals is ultimately a win-win situation for all. A



MIGRATION

Common principles for regular migration

The Federal Council has adopted its dispatch on the United Nations Global Compact for Migration, laying the foundations for Parliament to focus more closely on the UN member states' framework for action on international cooperation in the area of migration. The Federal Council concludes that the objectives defined in 2018 are consistent with Switzerland's migration policy priorities.

foreign policy and of its work in its partner countries.	conversation about poverty reduction, equal opportunities and human dignity.	policy priorities.
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